10th Meeting of the Advisory Expert Group on National Accounts,
13-15 April 2016, Paris, France

Agenda item: 7.3
Outcome of the Eurostat/ILO/IMF/OECD Workshop on Pensions

Introduction

On March 9-11, 2016, Eurostat, the International Labour Organization (ILO), the International Monetary Fund (IMF), and the Organisation of Economic Co-operation and Development (OECD) co-sponsored a workshop on pensions. The workshop facilitated informative discussions on the topics of pensions from a policy perspective, pension models and methodologies, actuarial guidelines/practices and public sector accounting standards, recording of pensions according to statistical standards, preliminary results of some countries' analysis, and country experiences in the recording/communication of pensions.

The workshop discussions concluded that some areas required further action, including: the consistency/homogeneity of assumptions/methodologies in estimating pension entitlements; developing further guidance on the supplementary table 17.10; and, increasing cooperation with actuaries and public sector accountants in the development of guidelines and in the estimation and recording of pension entitlements.

Documentation

Paper: Summary Report on the Eurostat/ILO/IMF/OECD Workshop on Pensions

Main issues to be discussed

The AEG is requested to:

- Provide guidance on the next steps for addressing the issue of differing assumptions in the estimation of pension entitlements.
- Ideas and suggestion (on the need) to further increase cooperation with the actuarial and public sector accounting domains.

Summary Report on the Eurostat/ILO/IMF/OECD Workshop on Pensions[1]

Background

On March 9-11, 2016, Eurostat, the International Labour Organization (ILO), the International Monetary Fund (IMF), and the Organisation of Economic Co-operation and Development (OECD) co-sponsored a workshop on pensions. The workshop was held at the OECD Conference Centre in Paris, France.

Attendance at the workshop included a total of 101 registered participants: 71 representatives from 36 countries and 30 representatives from 11 international organisations. Participants came from a wide range of institutions including national statistical offices, central banks, actuarial offices, financial regulators, and government departments dedicated to treasury, finance or social security.

The workshop included topics on pensions from a policy perspective, pension models and methodologies, actuarial guidelines/practices and public sector accounting standards, recording of pensions according to statistical standards, preliminary results of some countries' analysis, and country experiences in the recording/communication of pensions. Each session was chaired on a rotating basis by a representative of one of the four sponsoring organisations. The discussions concerning each session are summarized in this report.

Pensions from a Policy Perspective

The session on pensions from a policy perspective was comprised of two presentations.

The first presentation was provided by the European Commission on their triennial Ageing Report. The purpose of this report is to analyse the budgetary impact of ageing populations. The report looks at the effect of pensions as well as health care, long-term care, education and unemployment benefits. Data on revenues and contributions are not systematically collected. However, there is a harmonised reporting framework among European countries with respect to public pension expenditures, drivers of pension expenditures, benefit ratios and replacement rates. Data also includes baseline projections with sensitivity tests (life expectancy, employment, productivity growth).

The second presentation was provided by the OECD on their biannual Pensions at a Glance publication. The focus of this document is on the prospects of pension entitlements based on data on pension rules, benefit levels, taxes, contributions and earnings levels. Drawing from this publication, the presentation reviewed future net replacement rates for low earners and average earners and outlined how poverty risks have shifted to younger generations over time. The presenter acknowledged that they are not well equipped to conduct expenditure projections and therefore must rely on external sources. There are gaps in the data available and they would like to obtain more information on: the share of pension assets (implicit and explicit) in total wealth, the breakdown of public/private pensions, civil service pensions, average age of first pension claims by year and birth cohort, information on actual contributed careers, number of people covered by private pension plans and the share of beneficiaries who annuitise their accumulated assets or take lump sums.

[1] Please note that this summary report is still needs further consultation with the participants to the workshop.

Follow-up discussion covered the need for greater transparency from pension schemes in order to make more data available for publications such as the Ageing Report and Pensions at a Glance. The chair acknowledged the importance of both reports in providing advice to national governments and noted that both organisations still face quite a number of data limitations.

Pension Models and Methodologies

The session on pension models and methodologies was comprised of six presentations: four from countries and two from international organisations.

Three of the country presentations (from the Czech Republic, Norway and Germany) summarized their experiences in modelling pension schemes and estimating the associated pension entitlements. Both the Czech Republic and Norway use dynamic microsimulation models supported by actuarial software. These models allow the user to simulate the life course of each individual based on transition probabilities of key events including marriage, divorce, child birth, employment, study and death. This enables each country to not only assess the adequacy of pensioner income, but also simulate the budgetary and distributional effects from detailed pension rules affecting a heterogeneous population. Both countries rely on administrative data to support their models. Germany uses Visual Basic for Applications (VBA) to run a standardized pension model, but like the microsimulation models, this standardized model also requires age-specific probabilities for key life events. Where data is not available or where there are subgroups of pensions with different rules, assumptions are made to generalize the model. The result is that this approach is less demanding on resources and the estimates tend to be more stable than individual models for each pension system.

The fourth country presentation by Canada was a methodological overview of compiling the actuarial balance sheet for the Canada Pension Plan (CPP). The presentation described how the legislatively prescribed measure for evaluating the CPP is the steady-state contribution rate and that the results confirm that the legislated contribution rate is sufficient to financially sustain the plan in the long term. As the CPP is funded by both investments and future contributions, the use of a closed group methodology understates the plan's assets such that the results contradict the conclusion that the plan is sustainable. On the basis that the pension plan represents a social contract whereby current contributors allow the use of part or all of their contributions to pay current beneficiaries' benefits, the presenter made the argument that the claims on CPP are not government debt. The presentation included an open group modified balance sheet, which splits the pay-as-you-go and funded components of the plan, such that the long-term asset excess/shortfall can be used to evaluate the plan's financial status while still providing sufficient context regarding the long term nature of the pay-as-you-go component.

Follow-up discussions included questions about the public accessibility of the model calculations, but this appeared to be limited due to the privacy of the data. The sensitivity of the results to various assumptions was also discussed, particularly regarding the discount rate and the application of a life expectancy reflecting the general population versus the covered group.

The first international presentation was made by Eurostat on the long-term impact on pension expenditures from the 2013 reform of EU staff regulations. The analysis is based on demographic assumptions regarding population (active and retired) using life tables, invalidity tables, deferral tables, widow rates, orphan rates and turnover rates, and based on economic assumptions using general salary growth, individual salary progression, basic salary at recruitment, accrual rates, inflation rate. Using this analysis, the presentation demonstrated how the evolution of the retiree population will affect pension expenditures from 2015 to 2065 and also showed the projected savings from the 2013 reforms generated by each reform parameter (individual salary progression, general salary growth, accrual rate, retirement table, entry salary, recruitment policy).

The second international presentation was made by the International Labour Organization (ILO) on linking pension reporting for actuarial sustainability, national accounting and government finance statistics. The presentation outlined different approaches for measuring and reporting the funded position of pension liabilities, such as the open group cohort method which compares projected liabilities and projected revenues, and the general average premium (GAP) deficit method which compares the legislated contributed rate with the long-term flat contribution rate required to fully finance the pension liabilities. The presenter made the point that the closed group approach to estimating pension liabilities does not faithfully represent the financial position of defined benefit, pay-as-you-go or partially funded pension schemes. An overview of the Government Finance Statistics Manual 2014 methodology to pension liabilities was provided, with the point that current reporting methodologies create a bias against certain designs (particularly defined benefit pension systems). The proposed alternative was to choose a reporting approach based on the funding of the pension scheme: closed group for fully funded schemes; open group for partially funded and pay-as-you-go schemes.

Follow-up discussions focused on how different methodologies can be interpreted. Some participants argued that it is important to use the closed group approach for national accounts and government finance statistics purposes in order to show what a government has already committed to spending, but acknowledged that the remainder of the pension scheme still needs to be reported in order to understand what would happen to the pension in the long-term under the status quo. One participant saw this as an issue of defining what constitutes an asset and a liability; the SNA/GFSM agree that a social security pension entitlement is not a liability, but in reality people behave as if it is an asset for households and a liability for governments. The other challenge is that the open group approach to estimating pension entitlements requires a much greater extent of forecasting, which dramatically increases the complexity of the calculations.

Actuarial Guidelines/Practices and Public Sector Accounting Standards

This session consisted of three presentations.

The first presentation was made by the International Public Sector Accounting Standards Board (IPSASB) regarding their consultations on how to account for social benefits. The presentation outlined the three options under consideration (the obligating event approach, the social contract approach, and the insurance approach) and described how each option would work. The IPSASB's recommended approach is currently a mix of the obligating event and the insurance approach. This was followed by a presentation by the International Actuarial Association (IAA) on the actuarial view of accounting for social benefits. The presenter emphasised that what is important is not the funding level but the sustainability of the pension scheme. The latter can be assessed using long-term actuarial projections. As previously proposed in the ILO presentation, the IAA wants the valuation approach to parallel the financing approach, which for a partially funded or pay-as-you-go pension scheme would require an open group valuation. They also contended that future contributions should be considered as an asset.

Follow-up discussions centred on how the legal framework of various social benefits could affect how they are recognised in financial statements, although IPSASB cited that their focus was to develop guidance based on the economic substance of the benefit. A key observation made at this point was that national accountants / statisticians, public sector accountants and actuaries are all struggling with the same issues with respect to the recognition and recording of social security pension entitlements. In addition, a major takeaway from these discussions was the need for greater cooperation between public sector accountants and actuaries.

The third presentation was provided by the IPSASB on the differences between International Public Sector Accounting Standard (IPSAS) 25 and Government Finance Statistics. They discussed how there is considerable overlap between the System of National Accounts (SNA), the Government Finance Statistics Manual (GFSM) and the IPSAS. However, in the area of defined benefit costs, there is similar terminology used with different meanings. An example of this was provided for past service costs and interest costs. The presenter also pointed out that IPSAS defines the actuarial techniques to be used for benefit costs, but GFS does not address this in detail.

Follow-up discussions focused on how the terminologies of different domains are not always aligned, such that there should be an effort made to converge towards a common terminology. However, it was also added that the GFSM does not go into the same level of detail in some areas, such as actuarial techniques, in order to keep the manual to a manageable length.

Recording of Pensions According to Statistical Standards

The session on the recording of pensions according to statistical standards was comprised of four presentations: two on the recording of pension entitlements in the core accounts versus the supplementary table and two on the recording of a pension fund's claims on a pension manager.

The first presentation was provided by the OECD on the recording of pension entitlements according to the SNA. This described the challenges arising from inconsistent use of wording for distinguishing pension schemes (employment-related versus social security, private versus public, funded versus unfunded) and proposed options to clearly determine whether pension entitlements should be recorded in the core accounts or only in the supplementary table. Two options were presented. The first option was to focus on the distinction between social security and employment related, using factors such as control/finance of the scheme, coverage of the scheme, and emergence of the scheme / legal nature to make such a distinction. The second option was to apply the asset boundary of the SNA, which is based on the presence of a legally binding contract or a constructive liability. The presentation recommended the option of using the asset boundary to decide which entitlements to record in the core accounts, but noted that more guidance would be needed on the correct interpretation of a constructive liability. Follow-up discussions did not lead to a consensus on which option to pursue.

The second presentation was made by Eurostat on the allocation of pension arrangements inside, outside and within the supplementary table on pensions in social insurance. The guidelines on when to reclassify pension schemes to social security were clarified. For defined contribution schemes, this is when the government is effectively ensuring the payment of benefits for an amount higher than what is payable from the assets accumulated in the fund. For defined benefit schemes, this is when government is effectively ensuring the payment of benefits for an amount higher than 50% of the actuarial value of the pensions from its own resources. Some questions were raised on how to address specific schemes that did not clearly fall under one case or the other.

The third presentation was based on a United Nations paper, and was presented by the OECD, on the accrual recording of property income in the case of liabilities between a pension manager and a defined benefit pension fund. When a pension manager is responsible for meeting the liabilities of a defined benefit pension fund in the case of a shortfall, the shortfall should be recorded as a claim of the fund on the pension manager in the financial accounts and balance sheets. As the income accruing to the beneficiaries will not be equal to the actual property income earned by the pension fund, the difference between these wo flows is recorded as an explicit accrued property income flow from the pension manager to the pension fund. The presentation provided two options on how to classify the imputed property income on the claim towards the pension manager: as investment income payable on pension entitlements (D442) or as interest (D41). This presentation was followed by a presentation provided by the IMF on the recording of flows associated with claims of pension funds on pension managers. It questioned whether the flow from the pension manager to the pension fund should really be considered as property income, as not all financial assets have property income. Even if the flow is regarded as property income, significant practical problems remain, such as how to deal with the increased/decreased return on actual assets, asset value volatility, demographic changes, and the underperformance of real assets. Furthermore, if the flow can be positive or negative, it appears to be more like a financial flow or other economic flow. The discussions following these two presentations led to different preferences from country representatives. The chair concluded that the analysis needed to provide more detailed examples to inform the discussion.

Country Experiences: Preliminary Results

The session on countries' preliminary results consisted of four presentations.

The first presentation was provided by Switzerland's Federal Statistical Office. The presentation provided an overview of pension funds in Switzerland as well as their data sources. The presenter also showed the approach to recording contributions, benefits and service charges in the supplementary table, transfers between schemes, other changes in volume caused by changes in the mortality table, and revaluations due to a change in the discount factor. Follow-up discussions covered the issue of the ability in Switzerland to withdraw retirement benefits in order to purchase a house and how such a withdrawal should be treated in the national accounts.

The second presentation was provided by Mexico's Instituto Nacional de Estadistica y Geografia. This provided an overview of the pension system in Mexico and the pension reforms that took place in 1992, 1997 and 2007. The presenter also provided the pension statistics recorded in both the core national accounts and the supplementary table. As the figures integrate the actuarial estimates from various sources, there is a need to evaluate the homogeneity in methods and assumptions. Follow-up discussions focused on the different discount rates used in social security schemes versus employment-related schemes and on how transfers between schemes would be shown in the core accounts.

The third presentation was provided by Statistics Netherlands on the effects of the increasing retirement age in the Netherlands. The presentation provided an overview of how the retirement age will continually increase based on increases in life expectancy. Based on different life expectancy projections, the preliminary results of the supplementary table were provided under four different scenarios (retirement age remains at 65 years; retirement age raised to 67 in 2023 and remains at that level; retirement age increased based on the life expectancy projections of Statistics Netherlands and of Eurostat). The impact of an increasing retirement age was substantial: entitlements were 13% lower when the retirement age continued to increase. Follow-up discussions focused on how the changes to pension entitlements based on an increasing retirement age would be recorded in the supplementary table.

The fourth presentation was provided by De Nederlandsche Bank on the decomposition of technical reserves of pension funds in price and volume changes. The presenter outlined the ESA 2010 typology for economic flows in the context of pension entitlements and the ESA practice with respect to the decomposition of technical reserves. He then discussed practical obstacles and provided an example of estimating a price-volume breakdown for the changes in pension entitlements. The presentation concluded that statistical guidance from the ESA is useful in analysing technical reserves but it still remains an analytical scheme and cannot fit every situation perfectly. Based on the decomposition, price movements account for around 72% of all changes in pension entitlements, while the structural downward trend of long-term interest rates explain most of the variations in pension fund obligations. Follow-up discussions included comments from other countries on how they distinguish between price and volume changes as well as comments from international organisations on what discount rate to apply in the context of making stable estimates (quarterly market rates versus a rate based on a long-term moving average).

Country Experiences: Recording/Communication of Pensions

This session consisted of four presentations.

The first presentation provided by Canada's Office of the Superintendent of Financial Institutions was on the communication of financial information for the Canada Pension Plan (CPP). The presentation provided an overview of the various types of reports released on the CPP. The CPP Actuarial Report is designed to focus on long-term financial sustainability and so it uses an open group balance sheet, with the information on the closed group balance sheet presented in a footnote. The presenter made the argument that the CPP as a partially funded plan represents a social contract, such that each year current contributors allow the use of part or all of their contributions to pay current benefits, which also means that claims for current and past contributors to the contributions of future contributors are created. As a result, these claims are not government debt and at any valuation date, these claims could be expressed as a present value of future contributions of current and future contributors. The presenter also emphasised the need for cooperation between actuaries, accountants and auditors in order to conduct effective disclosure of the CPP's finances. Follow-up discussions covered how the parallel Quebec Pension Plan now has a higher contribution rate due to delays in implementing an adjustment mechanism and how more resources are required to provide multiple disclosures of the CPP's financial status.

The second presentation was provided by the U.S. Bureau of Economic Analysis on bringing actuarial measures of defined benefit pensions into the U.S. national accounts. The presentation provided an overview of the SNA 2008 recommendations and the National Income and Product Accounts (NIPA) treatment of compensation, property income and pension fund measures. The resulting NIPA pension tables were then presented for 2014. Follow-up discussions focused on the use of different discount rates and methodologies (e.g. ABO vs PBO) in the estimates of different pension schemes.

The third presentation was provided by the U.S. Board of Governors of the Federal Reserve System on pension liabilities in the U.S. Financial Accounts. The presenter provided an overview of the current method of recording pension liabilities, the composition of household retirement assets, and the shift in private defined benefit plans to life insurance annuities. This was followed by another presentation by the U.S. Board of Governors of the Federal Reserve System on the pension table 17.10 for the U.S. The results for the supplementary table were displayed, with additional information provided on the U.S. Social Security funding shortfall under closed group and open group calculations.

Conclusions

It was clear from the first session on pensions from a policy perspective that the national accounts are facing increasing user demands. The 2008 SNA and ESA 2010 contained an important innovation in the form of the supplementary table on pension schemes, which will help in providing users with additional data on pension entitlements. However, workshop participants could not agree on what should be recorded in the core accounts versus the supplementary table. Further discussion is required at the Advisory Expert Group (AEG) on National Accounts.

While progress has been made, the questions that arose during the follow-up discussions in later sessions indicated that national accountants are still struggling with the implementation of the supplementary table, both in conceptual terms and practical terms. While Eurostat is already providing additional advice in a European context, more detailed guidance is needed at a world-wide level.

Another recurring theme during the workshop discussions was the need for greater cooperation across all of the domains involved in pension statistics. Cooperation between national accountants, actuaries and public sector accountants would be beneficial in the development of additional guidelines, particularly with respect to determining the correct models and methodologies to use when estimating pension entitlements.

The presentations of country experiences revealed that consistency is a common challenge in compiling data and reporting on multiple pension schemes. Comparing methodologies across private pension funds, or between private and public pension funds, leads to issues of consistency as there is a wide range of differing practices with respect to key assumptions such as the discount rate. When expanding pension statistics to an international context, statistical offices may have to make a choice between consistency within the country and international comparability. This highlights the importance of providing detailed metadata on key assumptions used in the estimation process.

In the discussions between participants from the actuarial and national accounting domains, it became evident that one number does not fit all purposes. Some figures are best suited for reporting the present state of the economy, including the balance sheets of the household, general government and financial corporation sectors, while other figures are best suited for assessing the long-term financial sustainability of individual pension schemes. Increased cooperation will help in determining the most appropriate approach to recording and communicating complex pension information to a wide range of users.